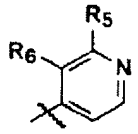
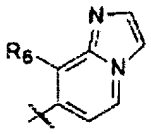
REMARKS/ARGUMENTS

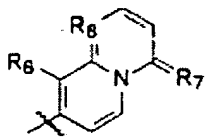
Claims 1-5 are pending in the application. Claims 1 and 3 stand rejected under 35 USC § 102(b) as purportedly being anticipated by Barrio et al., and claims 1-5 stand rejected under 35 USC § 103(a) as purportedly being unpatentable over Barrio et al., in view of Triplett et al. in further view of Kung. Applicants respectively traverse the rejections.

Applicants call the Examiner's attention to the fact that they have amended claim 1 to correct an error in the structure shown as one of the choices for R_1. Specifically, claim 1 recites a composition comprising a compound of formula (I) wherein R_1 can be any of several different substituents, including any of three cyclic structures:

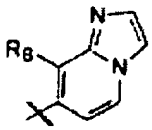




and



The second of these structures contains an error in the number and location of double bonds in the 6-member ring, resulting in an incorrect valence for nitrogen and carbon. The correct structure should be:



This error is also found in the specification at pages 3, 4, and 8. The correction of this error would be obvious to the skilled person; therefore, correcting it does not constitute the introduction of new matter.

Referring to the third cyclic structure listed above (the one on the right), the claims and the specification erroneously indicate that "R_8" can be N, O, or S. However, and as would be apparent to the skilled person, the location of the double bonds in this structure will only permit R_8 to be N. Applicants have amended the specification and claim 1 to correct these obvious

errors. Because the obvious correction to these mistakes is inherent, no new matter has been introduced.

Consider now the prior art rejections. Claims 1 and 3 stand rejected based on the Barrio et al., publication (J. Am. Chem. Soc., 1996, 118, 5572-5579). The Barrio publication discloses two compounds: "DDNP," in which R_2 and R_3 are both methyl and R_1 is $-C(CH_3)=C(CN)_2$(see page 5572, Chart 1, Formula II), and "ADMAN," in which both of R_2 and R_3 are methyl and R_1 is acetyl ($-C(=O)CH_3$). In contrast, Applicants' claim 1 specifies that "R_2 is selected from the group consisting of alkyl and alkylenyl-R_{10} **and R_3 is alkylenyl-R_{10}**, wherein, R_{10} is selected from the group consisting of -OH, -OTs, halogen, spiperone, spiperone ketal, and spiperone-3-yl" (Claim 1, emphasis added). Clearly, the Barrio publication's disclosure of substituted naphthalenes in which the amino group is a simple amine (i.e., both R_2 and R_3 are methyl) is insufficient to constitute an anticipation of the more complex compounds recited in Applicants' claim 1 and the claims dependent therefrom.

Claims 1-5 stand rejected as purportedly being obvious in view of a combination of references, including the Barrio publication. However, as noted above, the Barrio publication does not disclose compounds in which the amino group is substituted with chemical moieties other than methyl. In particular, it does not disclose alkylenyl-R_{10} groups in which R_{10} is -OH, -OTs, halogen, spiperone, spiperone ketal, or spiperone-3-yl. Nor does it disclose compounds in which R_2 and R_3 together form a heterocyclic ring. Accordingly, whether the Barrio publication is taken alone or in combination with the other references, it does not teach or suggest the claimed invention and can not serve as the basis for an obviousness rejection.

The other references cited by the Examiner (Triplett and Kung) do not bridge the gap. Triplett describes the synthesis and use of certain radiolabeled bromine-containing dyes, the chemical structures of which are wholly removed from the compounds presently recited in Applicant's claims. The Kung reference is similarly deficient and describes various piperizine derivates, which are dissimilar from the naphthalenic compounds recited in the pending claims.

Applicants also note that Triplett et al's. disclosure of the use of various radioactive bromine isotopes would not teach the skilled person how to make compounds radiolabeled with

^{18}F or ^{123}I. To the contrary, the reference teaches, at column 2, lines 16-27, that bromine-77 has a half-life of 56 hours and is therefore much easier to work with than shorter-lived isotopes. In contrast, ^{18}F has a half-life of only 110 minutes. Despite the fact that bromine and fluorine are both halogens, their chemistries are not the same (molecular fluorine, F_2 is extremely electrophilic, and fluoride ion F^- is extremely nucleophilic). It is a leap to assume that one could take the bromine chemistry describe by Triplett et al. and apply it in the context of the present invention.

Accordingly, Applicants request reconsideration of the rejections and allowance of all claims.

Respectfully submitted,

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